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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,954	12/19/2001	Richard Hagarty	10014530-1	1135

			EXAMINER
22879	7590	07/18/2005	FLEARY, CAROLYN FATIMAH

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ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 6/1/2005.

2a)☒ This action is FINAL.　　2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the
> prior art are such that the subject matter as a whole would have been obvious at the time the invention
> was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability
> shall not be negatived by the manner in which the invention was made.

2.   **Claims 1-5, 7–14, 16-20 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Dunham et al. (US 6,854,035) in view of Cambron (US

6,539,027).

In regards to claim 1, Dunham et al. discloses a method for managing a storage area

network (SAN), comprising:

- a SAN (fig1- SAN) including a plurality of devices (fig. 1-#12a-c; #14a-c; #16, col. 21

  lines 44-51) to a computer (fig. 1-#20,col. 21 lines 28-32);

- providing a SAN manager (fig. 1-#20, fig. 3-#20, col. 21 lines 32-37, col. 23 lines 40-

  45) that is associated with a storage area mapping (SAM) module (fig. 3-#30, fig. 6-

  #38,40);

- graphically representing said devices (col. 25 lines 66-67, col. 26 lines 1-2, col. 53 lines

  3-6) of said SAN as icons (e.g. The GUI can provide a plurality of views, each for

  example with icons or text representations representing hosts, storage devices, and

  associations there between) and links (i.e. interconnect fabric, associations between

  devices) between said devices (figs. 16-22,28-31) of said SAN (fig. 1) using said SAM

  module(fig. 3-#30, fig. 6-#38); and allowing at least one of add (i.e. assigning, col. 40

lines -40) a link between said devices, remove(i.e. unassign) a link between said devices

and move (col. 46 lines 66-67 , col. 47 lines 1-11) a link between said devices (col. 22

lines 48-54, col. 23 lines 23-26, col. 25 lines 41-45, col. 37 lines 20-30, col. 67 lines 28-

46).

Dunham is silent on allowing interaction with said icons and/or line segments to at

least one of add a link between said devices, remove a link between devices and move a

link between devices.

Cambron discloses allowing interaction with said icons and/or line segments (e.g. a

graphical user interface provides a graphic display and enables user input through manual

means.... Using the graphical interface, a user may designate nodes, establish spans

between nodes) to at least one of add a link between said devices, remove a link between

devices and move a link between devices (e.g network, with nodes displayed rectangles

and links between nodes displayed as heavy lines. The user can add or remove nodes and

links, or rearrange them, and change the properties of the links by standard GUI click-and-

drag techniques for enabling network design, node (e.g. device) configuration, and

alteration of an existing network.)

It would be obvious to one or ordinary skill in the art at the time of the invention to

modify Duhnam et al. by having interaction with said icons and/or line segments to at least

one of add a link between said devices, remove a link between devices and move a link

between devices for enabling network design, node (e.g. device) configuration, and

alteration of an existing network (col 4 ll 6 –18, col. 4 ll. 50-60, col. 10 ll. 49-59, col. 11 ll.

21-23).

3.   In regards to claim 2, Dunham et al. in view of Cambron discloses the SAN

management system of claim 1 further comprising a discovery module (See Duhnam fig. 6-

#60) associated with said SAN module (See Duhnam fig. 3-#30, fig. 6-#38,40) that

automatically discovers said devices and said links of said SAN (See Duhnam col. 26 lines

9-25; 38-42; 52-67, col. 38 lines 14-32).

4.   In regards to claim 3 Dunham et al. in view of Cambron discloses the SAN

management system of claim 2 wherein said SAM module generates a window with a tree

list panel (See Duhnam fig-#16; #28, fig. 26, col. 48 lines 49-53, col. 52 lines 25; 34-45)

and a map panel (See Duhnam fig. 29-31, col. 53 lines [1-18;25-30;45-62]).

5.   In regards to claim 4 Dunham et al. in view of Cambron discloses the SAN

management system of claim 3 wherein said map panel includes a tool bar (See Duhnam

fig. 29-#176-#178,fig. 30#190-192, fig. 31-#202) with a plurality of icons(See Duhnam

fig. 29-#182-86), a first display (See Duhnam fig. 29) area and a second display area (See

Duhnam fig. 30-31, col. 36 lines 45-56).

6.   In regards to claim 5, Dunham et al. in view of Cambron discloses the SAN

management system of claim 4 wherein said SAM module displays a map of said devices

with defined links(i.e. Normal, New) in said first display area and said devices with

undefined links (i.e. Broken missing) (See Duhnam fig. 17-Status, col. 47 lines 36-67, col.

48 lines 1-36) in said second display area (See Duhnam fig. 26, col. 48 lines 49-59, fig.

17).

7.   In regards to claim 7, Dunham et al. in view of Cambron discloses the SAN

management system of claim 1 wherein said SAM module displays a device type of said

devices using shapes(fig. 17-#104, fig. 18-#112a) and a device status of said devices using

color(See Duhnam col. 48 lines 53-56).

8.   In regards to claim 8, Dunham et al. in view of Cambron the SAN management

system of claim 1 wherein said SAM module displays link types of said links using line

segment types (fig. 26, fig. 29-31) and link status of said links using color (See Duhnam

col. 48 lines 53-56).

9.   In regards to claim 9, Dunham et al. in view of Cambron discloses the SAN

management system of claim 1 wherein said SAM module allows an operator to associate a

discovered device with an inferred hub (col. 47-Table i.e. broken, not valid, needs

attention). Dunham et al. in the Table of col. 47-48 indicates the results of information

acquired by a discover module. The table provides the status of all devices on the network

including those for which the exact topology cannot be ascertained (i.e. broken, needs

attention, not valid). A conflict resolution mechanism provided by Dunham et al. would

allow a discovered device to be associated with a device for which the exact topology cannot

be ascertained (i.e. inferred hub). (see Dunham et al. col. 40 lines 22-45 Col. 40-41 –

Problem Scenarios)

10.   In regards to claim 10 Dunham et al. in view of Cambron discloses a method for

managing a storage area network (SAN), comprising:

- connecting a SAN (fig1- SAN) including a plurality of devices (fig. 1-#12a-c; #14a-c;
  #16, col. 21 lines 44-51) to a computer (fig. 1-#20,col. 21 lines 28-32);

- providing a SAN manager (fig. 1-#20, fig. 3-#20, col. 21 lines 32-37, col. 23 lines 40-45) that is associated with a storage area mapping (SAM) module (fig. 3-#30, fig. 6-#38,40);

- graphically representing said devices (col. 25 lines 66-67, col. 26 lines 1-2, col. 53 lines 3-6) of said SAN as icons (e.g. The GUI can provide a plurality of views, each for example with icons or text representations representing hosts, storage devices, and associations there between) and Links (i.e. interconnect fabric) between said devices (figs. 16-22,28-31) of said SAN (fig. 1) using said SAM module(fig. 3-#30, fig. 6-#38); and

- allowing at least one of add (i.e. assigning, col. 40 lines -40) a link between said devices, remove (i.e. unassign) a link between said devices and move (col. 46 lines 66-67 , col. 47 lines 1-11) a link between said devices (col. 22 lines 48-54, col. 23 lines 23-26, col. 25 lines 41-45, col. 37 lines 20-30, col. 67 lines 28-46).

Dunham is silent on allowing interaction with said icons and/or line segments to at least one of add a link between said devices, remove a link between devices and move a link between devices.

Cambron discloses allowing interaction with said icons and/or line segments (e.g. a graphical user interface provides a graphic display and enables user input through manual means…. Using the graphical interface, a user may designate nodes, establish spans between nodes) to at least one of add a link between said devices, remove a link between devices and move a link between devices (e.g network, with nodes displayed rectangles and links between nodes displayed as heavy lines. The user can add or remove nodes and links, or rearrange them, and change the properties of the links by standard GUI click-and-drag techniques for enabling network design, node (e.g. device) configuration, and alteration of an existing network.)

It would be obvious to one or ordinary skill in the art at the time of the invention to modify Duhnam by having interaction with said icons and/or line segments to at least one of add a link between said devices, remove a link between devices and move a link between devices for enabling network design, node (e.g. device) configuration, and alteration of an existing network (col 4 II 6 –18, col. 4 II. 50-60, col. 10 II. 49-59, col. 11 II. 21-23).

11.   In regards to claim 11, Dunham et al. in view of Cambron discloses, the method of claim 10 further comprising automatically discovering said devices and said links of said SAN (fig. 1) using a discovery module (fig. 6-#60) that is associated with said SAN manager (fig. 6-#20) (col. 26 lines 9-25; 38-42; 52-67, col. 38 lines 14-32).

12.   In regards to claim 12, Dunham et al. in view of Cambron, the method of claim 11 further comprising generating a window with a tree list panel of said SAN (fig-#16; #28, fig. 26, col. 48 lines 49-53, col. 52 lines 25; 34-45) and said devices that are associated with said computer and a map panel (fig. 29-31, col. 53 lines 1-18;25-30;45-62).

13.   In regards to claim 13, Dunham et al. in view of Cambron discloses the method of claim 12 further comprising providing a tool bar (fig. 29-#176-#178,fig. 30#190-192, fig. 31-#202) including a plurality of icons (fig. 29-#182-86) a first display (fig. 29) area and a second display (fig. 30-31, col. 36 lines 45-56) area on said map panel.

14.   In regards to claim 14, Dunham et al. in view of Cambron, the method of claim 13 further comprising: displaying a map of said devices with defined links (i.e. Normal, New) in said first display area; and displaying said devices with undefined links (i.e. Broken missing)

(fig. 17-Status, col. 47 lines 36-67, col. 48 lines 1-36) in said second display area (fig. 26, col. 48 lines 49-59, fig. 17).

15.   In regards to claim 16, Dunham et al. discloses the method of claim 10 further comprising: displaying a device type of said devices using shapes(fig. 17-#104, fig. 18-#112a); and displaying a device status of said devices using color (col. 48 lines 53-56).

16.   In regards to claim 17 Dunham et al. in view of Cambron the method of claim 10 further comprising: displaying a link type of said links using line segments types (fig. 26, fig. 29-31); and displaying a link status of said links using color(col. 48 lines 53-56).

17.   In regards to claim 18. The method of claim 10 further comprising allowing an operator to associate a discovered device with an inferred hub (col. 47-Table i.e. broken, not valid, needs attention). Dunham et al. in the Table of col. 47-48 indicates the results of information acquired by a discover module. The table provides the status of all devices on the network including those for which the exact topology cannot be ascertained (i.e. broken, needs attention, not valid). A conflict resolution mechanism provided by Dunham et al. would allow a discovered device to be associated with a device for which the exact topology cannot be ascertained (i.e. inferred hub) (see Dunham et al. col. 40 lines 22-45 Col. 40-41 –Problem Scenarios)

18. In regards to claim 19 Dunham et al. discloses a storage area network (SAN)

management system for a computer network including at least one SAN, comprising: a SAN

including a plurality of devices (fig. 1-#12a-c; #14a-c; #16, col. 21 lines 44-51);

- a computer (fig. 1-20) that communicates with said SAN; and

- a SAN manager associated with said computer (fig. 1-#20, fig. 3-#20, col. 21 lines

  32-37, col. 23 lines 40-45);

- a discovery module (fig. 6-#60)associated with said SAN manager(fig. 3-#30, fig. 6-

  #38,40) that automatically discovers said devices and said links of said SAN(col. 26

  lines 9-25; 38-42; 52-67, col. 38 lines 14-32); and

- a storage area mapping (SAM) module (fig. 3-#30, fig. 6-#38,40) associated with

  said SAN manager that graphically represents said devices of said SAN as icons (e.g.

  The GUI can provide a plurality of views, each for example with icons or text

  representations representing hosts, storage devices, and associations there

  between) and said links between said devices (col. 25 lines 66-67, col. 26 lines 1-2,

  col. 53 lines 3-6),

- wherein said SAM module allows at least one of add a link between said devices(i.e.

  assigning, col. 40 lines -40), remove a link between said devices (i.e. unassign) and

  move a link between said devices (i.e. unassigning then assigning) (col. 22 lines 48-

  54, col. 23 lines 23-26, col. 25 lines 41-45, col. 37 lines 20-30, col. 67 lines 28-46).

Dunham is silent on allowing interaction with said icons and/or line segments to at

least one of add a link between said devices, remove a link between devices and move a

link between devices.

Cambron discloses allowing interaction with said icons and/or line segments (e.g. a

graphical user interface provides a graphic display and enables user input through manual

means.... Using the graphical interface, a user may designate nodes, establish spans

between nodes) to at least one of add a link between said devices, remove a link between

devices and move a link between devices (e.g network, with nodes displayed rectangles

and links between nodes displayed as heavy lines. The user can add or remove nodes and

links, or rearrange them, and change the properties of the links by standard GUI click-and-

drag techniques for enabling network design, node (e.g. device) configuration, and

alteration of an existing network.)

It would be obvious to one or ordinary skill in the art at the time of the invention to

modify Duhnam et al. by having interaction with said icons and/or line segments to at least

one of add a link between said devices, remove a link between devices and move a link

between devices for enabling network design, node (e.g. device) configuration, and

alteration of an existing network (col. 4 ll. 6 –18, col. 4 ll. 50-60, col. 10 ll. 49-59, col. 11 ll.

21-23).

19.   In regards to claim 20, Dunham et al. in view of Cambron discloses the SAN

management system of claim 19 wherein said SAM module allows an operator to associate a

discovered device with an inferred hub (col. 47-Table i.e. broken, not valid, needs

attention). Dunham et al. in the Table of col. 47-48 indicates the results of information

acquired by a discover module. The table provides the status of all devices on the network

including those for which the exact topology cannot be ascertained (i.e. broken, needs

attention, not valid). A conflict resolution mechanism provided by Dunham et al. would

allow a discovered device to be associated with a device for which the exact topology cannot

be ascertained (i.e. inferred hub). (see Dunham et al. col. 40 lines 22-45 Col. 40-41 –

Problem Scenarios).

20.   Claim 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunham et al. (US 6,854,035) in view of Cambron (US 6,539,027) as applied to claim 1 and 10 respectively above, and further in view of Walker et al. (US 6,594,696).

In regards to claim 6 and 15 Dunham et al. in view of Cambron teaches using a pointing device (i.e. click by way of mouse) on icons/links that provide addition details (See Dunham col. 9 lines 66-67, col. 10 lines 1-8, col. 36 lines 45-56 col. 52 lines 8-14) by selecting a link or icon. However Dunham et al. in view of Cambron is silent on providing a pointing device generating link details of a first link when a cursor is positioned over said first link for a first predetermined period; and generating device details of a first device when a cursor is positioned over said first device for a second predetermined period.

Walker et al. teaches management of a network via a graphical user interface (fig. 3) that displays graphical representation of devices on a network and communications lines (i.e. links) connecting the devices (col. 4 lines 7-12). A cursor stopping for a predetermined time period over objects (devices and communication See col.4 lines 33-35) results in the display of details on the objects (col. 4 lines 47-54, fig 3-5).

One of ordinary skill in the art at the time of invention would have clearly recognized that it is quite advantageous for the system of Dunham et al. to have to have the generation of additional details upon positioning a cursor above a link or device, as taught by Walker et al. in order to allow for quicker and simpler system to use and provide detailed information which may be required by a network manager (See Walker col. 3 lines 5-16).

Response to arguments

21.   Applicant's arguments, Dunham et al. (US 6,854,035) does not teach allowing interaction with the graphical representations of the devices and/or links in order to add, or

remove links", filed June 1, 2005 , with respect to the rejection(s)of claim(s) claims 1-5, 7-

14, and 16-20 under 35 USC 102(a) Dunham et al. (US 6,854,035) have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn. However,

upon further consideration, a new ground(s) of rejection is made in view of Dunham et al.

(US 6,854,035) in view of (US 6,539,027).

22.   In response to applicant's argument that the references fail to show certain features

of applicant's invention, it is noted that the features upon which applicant relies (i.e.,

"allowing interaction...in order to manipulate the status of the links") are not recited in the

rejected claim(s). Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Beaudoin, Luc et al. US 20030112958 A1 Overlay view method and system for
  representing network topology

- Gaspard, Moise et al. US 20030112764 A1 Method and apparatus for automatic
  discovery of logical links between network devices

- Franco; Louis M. et al.   US 6687745 B1   System and method for delivering
  a graphical user interface of remote applications over a thin bandwidth connection

- Knowlton; Kenneth Charles US 6181838 B1   Mechanism for the capture of
  graphical representations

- Kovacs, E; et al.   US 20010003191 A1 Communication device and software for operating multimedia applications

- Langfahl, Jr.; J. Craig   US 6031528 A   User based graphical computer network diagnostic tool

- Patterson, Martin   US 20020052941 A1 Graphical editor for defining and creating a computer system

- Planas; Miguel Alberto et al. US 6112015 A   Network management graphical user interface

- Uniacke; Mark   US 6564258 B1   Detection of network topology changes affecting trail routing consistency

- Walker; Lee Anthony et al.   US 6646656 B1   Graphical representation of the connections between network devices and their configuration

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
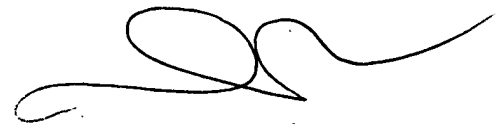
24.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn F. Fleary whose telephone number is (571) 572-7218. The examiner can normally be reached on 8:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Carolyn F Fleary
Examiner
Art Unit 2152

CFF

Dung C. Dinh
Primary Examiner